		Pushing the Env	velope
		2005 Science	e
		Content Stand	ards
South Dakota Scien	ce		
Grade 6			
Activity/Lesson	State	Standards	
			Students are able to classify matter based on
Chemistry (pgs. 25-			physical and chemical properties. Compare and
41)	SD	SCI.6.6.P.1.2.a	contrast compounds and elements.
			Students are able to describe how push/pull
			forces acting on an object produce motion.
Physics and Math			Demonstrate how all forces have magnitude and
(pgs. 43-63)	SD	SCI.6.6.P.2.1.a	direction.
			Students are able to describe how push/pull
Physics and Math			forces acting on an object produce motion using
(pgs. 43-63)	SD	SCI.6.6.P.2.1.b	Newton's Laws of Motion
(Pgc. 10 00)			Students are able to describe how push/pull
			forces acting on an object produce motion.
Rocket Activity (pgs.			Demonstrate how all forces have magnitude and
69-75)	SD	SCI.6.6.P.2.1.a	direction.
00 10)		001.0.0.1 .2.1.0	Students are able to describe how push/pull
Rocket Activity (pgs.			forces acting on an object produce motion using
69-75)	SD	SCI.6.6.P.2.1.b	Newton's Laws of Motion
00-10)	OD	001.0.0.1 .2.1.0	Newton's Laws of Motion
		Pushing the Env	velone
		2005 Science	
		Content Stand	
South Dakota Scien		Content Stand	alus
Grade 8			
Activity/Lesson	State	Standards	
Activity/Lesson	State	Standards	Describe structures and properties of, and
			changes in, matter. Students are able to classify
Chamiatry (nag. 25			
Chemistry (pgs. 25-	CD.	CCI 0 0 D 1 1 0	matter as elements, compounds, or mixtures and use formulas.
41)	SD	SCI.8.8.P.1.1.a	and use formulas.
		Duching the Fax	volomo
		Pushing the Env	· · · · · · · · · · · · · · · · · · ·
		2005 Science	
Cauth Dalasta Caian		Content Stand	arus
South Dakota Scien	Ce		
Grades 9-12	04-4-	Ota mala mala	
Activity/Lesson	State	Standards	
Types of Engines (0.0	SCI.9-12.9-	Given distance and time, calculate the velocity
pgs. 11-23)	SD	12.P.2.1.b	or speed of an object.
Types of Engines (SCI.9-12.9-	Distinguish between velocity and acceleration as
pgs. 11-23)	SD	12.P.2.1.d	related to force.
Types of Engines (SCI.9-12.9-	Explain how force, mass, and acceleration are
pgs. 11-23)	SD	12.P.2.2.d	related.
Chemistry (pgs. 25-		SCI.9-12.9-	Differentiate between physical and chemical
41)	SD	12.P.1.5.a	properties used to describe matter.
Chemistry (pgs. 25-		SCI.9-12.9-	Describe the effects of changing pressure,
41)	SD	12.P.1.5.c	volume, or temperature upon gases.
Physics and Math		SCI.9-12.9-	Given distance and time, calculate the velocity
(pgs. 43-63)	SD	12.P.2.1.b	or speed of an object.

Physics and Math (pgs. 43-63)	SD	SCI.9-12.9- 12.P.2.2.a	Describe how inertia is related to Newton's First Law.
Physics and Math		SCI.9-12.9-	Explain the effect of balanced and unbalanced
(pgs. 43-63)	SD	12.P.2.2.b	forces.
Physics and Math		SCI.9-12.9-	Identify the forces at work on action/reaction
(pgs. 43-63)	SD	12.P.2.2.c	pairs as distinguished from balanced forces.
Rocket Activity (pgs.		SCI.9-12.9-	Given distance and time, calculate the velocity
69-75)	SD	12.P.2.1.b	or speed of an object.
Rocket Activity (pgs.		SCI.9-12.9-	Explain the effect of balanced and unbalanced
69-75)	SD	12.P.2.2.b	forces.
Rocket Activity (pgs.		SCI.9-12.9-	Identify the forces at work on action/reaction
69-75)	SD	12.P.2.2.c	pairs as distinguished from balanced forces.
		Pushing the Er	avolono
		2005 Scier	
		Content Stan	
South Dakota Science	се		
Grade 12			
Activity/Lesson	State	Standards	
			Analyze essential principles and ideas about the
Physics and Math		SCI.12.9-	composition and structure of the universe.
(pgs. 43-63)	SD	12.E.2.1A.a	Describe the four fundamental forces.
			Analyze essential principles and ideas about the
Rocket Activity (pgs.		SCI.12.9-	composition and structure of the universe.
69-75)	SD	12.E.2.1A.a	Describe the four fundamental forces.